

II. CLAIM AMENDMENTS

1. (Currently Amended) scalable encoder for encoding a media signal, said encoder comprising

~~first encoding means~~ a core encoder for producing a first data stream, which is a core data stream relating to the media signal, having a first bit-rate,

~~second encoding means~~ an enhancement encoder for producing a second data stream, which comprises ~~a set of at least one enhancement data streams~~ stream relating to the media signal, said at least one enhancement data stream having a second bit-rate,

a multiplexer for combining at least the first data stream and the second data stream into a third data stream, and

~~control means, which is~~ a controller arranged to receive control information, to determine a target ~~combination ratio of bitrates~~ of the first data stream and the second data stream in the third data stream according to the control information and to adjust the combination of the first data stream and the second data stream in the third data stream by ~~affecting~~ adjusting the first and the second bit-rates so as to maintain the ratio substantially constant.

2. (Currently) A scalable encoder according to claim 1, wherein at least one of the ~~first core~~ and ~~second encoding means~~ enhancement encoders is a variable rate encoding means.

3. (Currently Amended) A scalable encoder according to claim 2, the ~~control means comprising~~controller having means for determining a target bit-rate at least for the data stream produced by said at least one of the firstcore and ~~second encoding means~~enhancement encoders and is arranged to adjust the bit-rate of said data stream.

4. (Currently Amended) A scalable encoder according to claim 2, the ~~control means~~controller further ~~comprising~~including a feedback loop, comparison means and a controller unit;

said feedback loop arranged to transfer information on an estimated actual bit-rate of said data stream to the comparison means;

said comparison means being supplied with a target bit-rate, arranged to calculate the difference between the estimated actual bit-rate of said data stream and target bit-rate and to provide the calculated difference to the controller unit;

said controller ~~unit~~ being arranged to output a control signal to said at least one of the firstcore and ~~second encoding means~~enhancement encoders, as a response to receiving said calculated difference; and

said at least one of the firstcore and ~~second encoding means~~enhancement encoders being arranged to adjust the bit-rate of said data stream according to the received control signal from the controller unit.

5. (Currently Amended) A scalable encoder according to claim 4, wherein said at least one of the first and second encoding means core and enhancement encoders is arranged to adjust quantization of coefficients representing the media signal according to the control signal.

6. (Currently Amended) A scalable encoder according to claim 4, wherein said at least one of the first and second encoding means core and enhancement encoders is the first encoding means, which is a variable rate speech encoder.

7. (Currently Amended) A scalable encoder according to claim 4, wherein said at least one of the first and second encoding means is the second encoding means, which core and enhancement encoders is a variable rate audio encoder.

8. (Currently Amended) A scalable encoder according to claim 7, wherein the variable rate audio encoder is arranged to determine a bandwidth for the media signal according to the control signal.

9. (Currently Amended) A scalable encoder according to claim 1, wherein at least one of the first and second encoding means core and enhancement encoders is a multi-rate encoding means having a set of available encoding algorithms.

10. (Currently Amended) A scalable encoder according to claim 9, the control means comprising means for determining a target bit-rate for at least the data stream produced by said at least one of the first and second encoding means core and enhancement encoders, means for selecting an encoding algorithm among said set of encoding algorithms and for indicating said selected encoding algorithm to said at least one of the first and second encoding means core and enhancement encoders, which is arranged to use the indicated encoding algorithm.

11. (Original) A scalable encoder according to claim 10, said means for selecting an encoding algorithm comprising rate determination means.

12. (Currently Amended) A scalable encoder according to claim 9, wherein said at least one of the first and second encoding means is the first encoding means, which core and enhancement encoders is a multi-rate speech encoder.

13. (Original) A scalable encoder according to claim 1, further comprising means for determining jointly a first target bit-rate for the first data stream and a second target bit-rate for the second data stream according to said control information.

14. (Currently Amended) A scalable encoder according to claim 13, further comprising a multiplexer buffer for storing data from the multiplexer for transmission, and in

that said multiplexer buffer is connected to the ~~control~~
~~means~~controller for delivering control information
indicating the occupancy level of said multiplexer buffer,
said occupancy level indicating the current amount of data
stored in the multiplexer buffer.

15. (Original) A scalable encoder according to claim 14,
wherein the means for determining jointly a first target
bit-rate for the first data stream and a second target bit-
rate for the second data stream are arranged to adjust the
target bit-rates so that the ratio of the target bit-rates
is substantially constant as long as the occupancy level of
the buffer is below a certain first threshold.

16. (Currently Amended) A scalable encoder according to
claim 1, wherein the ~~control~~meanscontroller is arranged to
receive control information indicating a preferred
combination of the first and second data streams.

17. (Original) A scalable encoder according to claim 16,
wherein said control information indicating a preferred
combination of the first and second data streams is used to
determine a preferred ratio of the target bit-rate of the
first data stream and the target bit-rate of the second
data stream.

18. (Currently Amended) A scalable encoder according to
claim 1, further comprising decoding means for decoding
said first data stream into a decoded signal,

wherein said ~~second encoding means~~ are enhancement encoder is arranged to encode a difference signal, which is the difference between the media signal and the decoded signal, said ~~second encoding means~~ enhancement encoder producing the second data stream having said second bit-rate.

19. (Currently Amended) A scalable encoder according to claim 18, wherein the ~~first encoding means~~ core encoder is a speech encoder and the ~~second encoding means~~ enhancement encoder is an audio encoder.

20. (Original) A scalable encoder according to claim 19, wherein the speech encoder is a multi-rate speech encoder and the audio encoder is a variable rate audio encoder.

21. (Original) A scalable encoder according to claim 19, wherein the speech encoder is a variable rate speech encoder and the audio encoder is a variable rate audio encoder.

22. (Currently Amended) A scalable encoder according to claim 1, wherein the ~~first encoding means~~ core encoder is a base layer video encoding means and the ~~second~~ enhancement encoder comprises at least one enhancement layer video encoding means.

23. (Original) A scalable encoder according to claim 1, further comprising

third encoding means for producing a fourth data stream, which is a core data stream corresponding to a second media signal, having a fourth bit-rate, and

fourth encoding means for producing a fifth data stream, which comprises a set of enhancement data streams corresponding to the second media signal, having a fifth bit-rate,

wherein the multiplexer is arranged to combine at least the first, the second, the fourth and the fifth data streams into a third data stream, and the control means is arranged to determine a target combination of the first, the second, the fourth and the fifth data streams in the third data stream according to the control information and to adjust the combination of said data streams in the third data stream by affecting the first, the second, the fourth and the fifth bit-rates.

24. (Currently Amended) A multimedia terminal comprising a scalable encoder having

~~first encoding means~~ a core encoder for producing a first data stream, which is a core data stream relating to the media signal, having a first bit-rate,

~~second encoding means~~ enhancement encoder for producing a second data stream, which comprises a set of enhancement data ~~streams~~ stream relating to the media stream, said at least one enhancement data stream having a second bit-rate, and

a multiplexer for combining at least the first data stream and the second data stream into a third data stream, and

~~and control means, which is~~ ^o a controller arranged to receive control information, to determine a target ~~combination ratio of bit rates~~ of the first data stream and the second data stream in the third data stream according to the control information and to adjust the ~~combination ratio of bit rates~~ of the first data stream and the second data stream in the third data stream by ~~affecting~~ adjusting the first and the second bit-rates so as to maintain the ratio substantially constant.

25. (Original) A multimedia terminal according to claim 24, further comprising an input element for inputting preference information indicating a preferred combination of the first data stream and the second data stream, said preference information being delivered as control information to the control means.

26. (Original) A multimedia terminal according to claim 25, wherein said input element constitutes a part of a user interface of the multimedia terminal.

27. (Original) A multimedia terminal according to claim 26, wherein the user interface comprises a slide switch.

28. (Original) A multimedia terminal according to claim 25, wherein said input element is arranged to receive external control information.

29. (Original) A multimedia terminal according to claim 28, wherein said input element is arranged to receive control information from a communication network.

30. (Original) A multimedia terminal according to claim 28, wherein said input element is arranged to receive control information from a second multimedia terminal.

31. (Original) A multimedia terminal according to claim 24, said multimedia terminal being a mobile station of a mobile communication network.

32. (Original) A multimedia terminal according to claim 24, said multimedia terminal being an H.324 multimedia terminal.

33. (Currently Amended) A method for scalable encoding of a media signal, said method comprising ~~the steps of~~:

encoding the media signal into a first data stream, which is a core data stream corresponding to the media signal, having a first bit rate,

encoding the media signal into a second data stream, which comprises ~~a set of~~ at least one enhancement data

~~streams~~ stream corresponding to the media signal, the
at least one enhancement data stream having a second
bit rate,

multiplexing at least the first data stream and the
second data stream into a third data stream,

receiving control information,

determining a target ~~combination~~ ratio of bit rates of
the first data stream and the second data stream in the
third data stream according to the control information,
and

adjusting the combination of the first data stream and
the second data stream in the third data stream by
~~affecting~~ adjusting the first and the second bit-rates
so as to maintain the ratio substantially constant.

34. (Original) A method according to claim 33, further
comprising the steps of:

determining according to the control information a
preferred ratio for a target bit-rate of the first data
stream and a target bit-rate of the second data stream,

determining jointly said target bit-rates,

feeding the third data stream into a buffer, and

determining the occupancy level of the buffer,

wherein, when the occupancy level of the buffer is
below a certain first threshold (T_2), the ratio of said
target bit-rates is substantially said preferred ratio.

35. (Original) A method according to claim 34, wherein, when the occupancy level of the buffer is below a certain second threshold (T_1), the target bit-rate for the first data stream is determined based on the content of the media signal.